

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A flexible flat panel display comprising an electro-optical medium, a first substrate, a display substrate positioned coplanar with said first substrate, a first spacer and a second spacer positioned between said first substrate and said display substrate, said first substrate, display substrate, first and second spacers defining a cell structure for containing said electro-optical medium, wherein at least one of said first substrate and said display substrate having a modulus of elasticity smaller than or equal to ~~1.5 Gpa~~ 1.5 GPa, further comprising a first layer positioned substantially coplanar and adjacent to said first substrate, ~~which~~ wherein said first layer has a modulus of elasticity, E_I , and said first substrate has a modulus of elasticity, E_{II} , where ~~is~~ E_I is larger than E_{II} , wherein a

thickness of said first substrate, said display substrate and said first layer are equal.

2. (Currently Amended) A The flexible flat panel display according to claim 1, wherein said first substrate has a modulus of elasticity in the range of ~~from~~ 1.3 GPa to 0.1 GPa.

3. (Currently Amended) A The flexible flat panel display according to claim 1, wherein said electro-optical medium comprises a liquid crystal, or an electro-chrome or electro-phoretic element, a light emitting element, an organic or inorganic light emitting element, polymer light emitting element, or any combination thereof.

4. (Currently Amended) A The flexible flat panel display according to ~~claim 1~~ claim 1, further comprising one or more layers positioned substantially coplanar and adjacent to an upper and/or lower surface of said first substrate.

Claim 5 (Canceled)

6. (Currently Amended) A The flexible flat panel display according to claim 1, wherein said first layer is positioned nearest said electro-optical medium and said first substrate furthest from said ~~electro-optical~~ electro-optical medium.

7. (Currently Amended) A The flexible flat panel display according to claim 1, wherein the ratio E_I/E_{II} is larger than 20.

Claim 8 (Canceled)

9. (Currently Amended) A The flexible flat panel display according to claim 1, wherein said first substrate is bendable into a radius of curvature smaller than 300mm.

Claim 10 (Canceled)

11. (Currently Amended) A The flexible flat panel display according to claim 1, wherein said display substrate has a modulus of elasticity in the range of from 1.3 GPa to 0.1 GPa.

12. (Currently Amended) A The flexible flat panel display according to ~~claim 1~~ claim 1, further comprising one or more layers positioned substantially coplanar and adjacent to an upper and/or lower surface of said display substrate.

13. (Currently Amended) A The flexible flat panel display according to ~~claim 1~~ claim 1, further comprising a second layer positioned substantially coplanar and adjacent to the display substrate, which second layer has modulus of elasticity, E_{III} , and said display substrate has a modulus of elasticity, E_{IV} , where said E_{III} is larger than E_{IV} .

14. (Currently Amended) A The flexible flat panel display according to claim 13, wherein the ratio E_{III}/E_{IV} is larger than 20.

Claim 15 (Canceled)

16. (Currently Amended) A The flexible flat panel display according to claim 1, wherein said cell structure defines a cell

gap d between said first substrate and display substrate.

17. (Currently Amended) ~~A~~ The flexible flat panel display according to claim 13, wherein said second layer is positioned nearest said electro-optical medium and said display substrate is positioned furthest from said ~~electro-optical~~ electro-optical medium.

18. (Currently Amended) ~~A~~ The flexible flat panel display according to claim 16, wherein said flexible flat panel display ~~being adapted~~ is configured to bend into a curvature, while ensuring a relative variation of said cell gap, Δ/d , equal to or smaller than 5%.

19. (Currently Amended) ~~A~~ The flexible flat panel display according to claim 18, wherein the relative variation of said cell gap, Δ/d , of said flexible flat panel display satisfies the expression:

$$\Delta/d \leq \frac{(\frac{1}{d} + \frac{1}{h})L^4}{\kappa_{Geo} R^2 h}$$

where d is said cell gap, h is thickness of said first or said second substrate, L is the distance between said first and second spacers, κ_{Geo} is a geometric constant, and R is radius of curvature of said flat panel display while bent.

20. (Currently Amended) A The flexible flat panel display according to ~~claim 18, claim 16,~~ wherein said relative cell gap variation, Δ/d , is ~~equal to or smaller than a relative cell gap variation~~ in the range of from 5% to 0.1%.

21. (Currently Amended) A The flexible flat panel display according to ~~claim 1 claim, 1~~ further comprising a plurality of first and second spacers positioned between said first substrate and ~~second substrates~~ said display substrate defining a plurality of cell structures there between.

22. (Currently Amended) A The flexible flat panel display according to claim 1, wherein said first substrate comprises a

flexible polymer being transparent or opaque.

23. (Currently Amended) A The flexible flat panel display according to claim 1, wherein said display substrate comprise a flexible polymer being transparent or opaque.

Claims 24-25 (Canceled)

26. (Currently Amended) A The flexible flat panel display according to ~~claim 7,~~ claim 1, wherein the ratio E_I/E_{II} is E_I/E_{II} is in the range of ~~from 2~~ to 20.

27. (Currently Amended) A The flexible flat panel display according to claim 9, wherein said first substrate is bendable into a radius of curvature in the range of ~~from 200~~ to 1 mm.

28. (Currently Amended) A The flexible flat panel display according to ~~claim 14,~~ claim 13, wherein the ratio E_{III}/E_{IV} is in the range of ~~from 2~~ to 20.

29. (New) A flexible flat panel display comprising:
an electro-optical medium,
a first substrate,
a display substrate positioned coplanar with the first
substrate,

a first spacer and a second spacer positioned between the
first substrate and the display substrate, the first substrate,
display substrate, first and second spacers defining a cell
structure for containing the electro-optical medium,

wherein at least one of the first substrate and the display
substrate having a modulus of elasticity smaller than or equal to
1.5 GPa,

further comprising a first layer positioned substantially
coplanar and adjacent to the first substrate,

wherein the first layer has a thickness of up to 80% of the
total thickness of the first substrate and the first layer, and

wherein the first layer is located between the first substrate
and the electro-optical medium.

30. (New) The flexible flat panel display as claimed in claim

29,

further comprising a second layer positioned substantially coplanar and adjacent to the display substrate,

wherein the second layer has a thickness of up to 80% of the total thickness of the display substrate and the second layer.